

Published weekly for employees of Lawrence Livermore National Laboratory

Friday, December 12, 2003

Vol. 28, No. 49

Officer drawn to his avocation



DAVID SCHWOEGLER/NEWSLINE

PFO Joshua Calderon with the charcoal drawing he made of Edward Teller, which was displayed during the commemoration ceremony for Teller in early November.

By David Schwoegler

NEWSLINE STAFF WRITER

When he's not protecting the people and assets at the Laboratory, protective force officer Joshua Calderon displays all the talents of a gifted commercial artist.

Calderon, 30, who lives in Modesto with his wife and 2-1/2-year-old son, has been with the PFD for nearly three years.

See CALDERON, page 5

Leary and Tulk announce reorganization of business and technical information

Technical information services will move from Innovative Business and Information Services (IBIS) to the Administration and Human Resources Directorate under a reorganization announced Wednesday.

Associate Directors Jan Tulk of AHRD and Dave Leary of Laboratory Services announced the reorganization in an all-hands meeting for IBIS employees, saying the move would enhance services by consolidating areas of expertise such as communications within the same dierctorate.

"This is a good kind of reorganization. We're not doing it to address a problem, but because it is good for the institution," Leary said. "It will help break down stovepipes."

See REORGANIZATION, page 7

Director to update employees on Lab

Director Michael Anastasio will deliver a "State of the Lab" address at 1:30 p.m. Wednesday, Dec. 17, in the Bldg. 123 auditorium. Note the date and time have changed from the original announcement. The presentation will be broadcast on Lab TV channel 2.

Laboratory employee comment sought on updated whistleblower procedures

The Laboratory has been working closely with the University of California in developing procedures to implement UC's updated whistleblower and whistleblower protection policies at the Lab.

The draft procedures, which have been tailored to fit the Lab's organizational and policy structures, have been approved by UC and are available for employee review and comment at http://www-r.llnl.gov/human_resources/ hrsvcs/policy-

docs.html.

This Website also contains an introduction to the draft procedures, questions and answers, versions of the drafts showing the changes from current Lab whistleblower-related policies and procedures, and the full text of the UC policies on which they are based. Employee comments and suggestions on the draft procedures are welcome and may be directed to Virginia George at george 13@llnl.gov through Wednesday, Jan. 7.

Campaign closes in on HOME goal

Employees are reminded that the HOME campaign officially ends today at the close of business.

Campaign donations stood at \$1.29 million late

Tuesday, with last minute donations continuing to come in. "There's still time to make a donation," said Patricia Axelrod of Laboratory Services. "Any amount can help. Please go online or send in those pledge forms. We'll keep the online system open during the weekend, but it will turn off Sunday



Retirees serve as science education partners

More HOME, page 3

night until next year.

"Your generosity is greatly appreciated and makes a substantial difference to 207 plus non-

profit agencies, many that are more in need than ever given recent economic conditions," Axelrod added.

There will be another drawing for prizes next week with a drawing for the grand prize the following week. See page 3 for more HOME news or check the Web at http://www-r.llnl.gov/home2003/



TOPSCIENCE

- by TJ Gilmartin

A few years ago, several LLNL

retirees were hoping to put their knowledge of science to use, outside of their Lab jobs. Jim Hannon, Sam Stone, Hector Timourian and I were searching for a fulfilling way to do something good for others, as well as ourselves. Our search ended, and a

rewarding journey began, with a pro-

rewarding journey began, with a pro gram that links scientists with students.

Fellow retiree Timourian formerly of the Lab's Biomed Program introduced "Teaching Opportunities for Partners in Science" (TOPScience) to the Livermore schools back in 2000. Originally, Timorurian and Judy Wilson launched a similar program about 10 years ago that placed retired scientists and

engineers in rural schools in the San Joaquin Valley.

Currently, Livermore's TOPScience includes a diverse group of former LLNL, Sandia, and local scientists who juggle their travel plans, delay a golf game or two, and even put hobbies on hold to venture into the schools throughout the Livermore Valley.

See TOPSCIENCE, page 7



A quarter century of service

— Page 3



Engineering Career education

— Page 4



A unique native of California

— *Page 7*

2 Newsline Friday, December 12, 2003



AB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

A representative from California Casualty Insurance will be in the Benefits Office today. Appointments are required and may

be scheduled by calling 2-9955. California Casualty offers individual rates to Lab employees by payroll deduction for auto and homeowner/renter insurance. As with any employee-paid insurance coverage, employees are encouraged to comparison shop.

A power outage is scheduled for today from 7 a.m. to 3 p.m. in Bldg. 291. Air conditioning, heating and elevators also will be

affected. For further information, contact Mark Cardoza at 3-0490.

Come join **Tri-Valley Ani**mal Rescue for your pet photos with Santa today from 10 a.m. to 1 p.m. at Puppy Playland in San

Ramon (2556 San Ramon Valley Blvd). Five-by-seven photographs are available for \$7 each or two for \$1. Print quality digital images on CD are available for \$15. Proceeds from this event will be used to help build a shelter exercise area for homeless animals at the East County Shelter in Dublin. For more information, visit www.tvar.org or contact TVAR at 803-7043 of events@tvar.org.

Wednesday

Today's session of the **Mac**intosh Technical Seminar **Series** will feature a presentation on directory services by Robert Esker, senior sys-

tems engineer, Apple Computer. Esker will discuss best practice implementations of Open Directory with Mac OS X client and server systems, and compatibility with Microsoft's proprietary Active Directory, at 10:30 a.m. in the Bldg. 543 a.uditorium For further information, contact Duane Straub, 2-9774, or straub1@llnl.gov.

Thursday

The BioSecurity and **Nanosciences Laboratory** (BSNL) will hold an open house for employees today from 11 a.m. to 2 p.m. Sci-

entists working in the BSNL explore the microscopic world of living organisms, many of which are harmful biological pathogens such as viruses, spores and bacteria, as well as biological toxins and protein machines.



Looking for an interesting place to take friends and family who are visiting during the holidays? Why not sign them up for a tour of

the Laboratory? The Public Affairs Office provides community tours for those 18 years and older on Tuesday and Thursday mornings. Advanced registration is required. For more information, call Carole Phillips, 4-6575.

Celebrating 25 years



JACQUELINE McBride/Newsline

Wayne Shotts, left, and Jeff Morris attended last week's gourmet breakfast, which honored employees who have been employed at the Lab for 25 years.

IN MEMORIAM

Bruce D. Page

Bruce D. Page, a 37-year resident of Livermore, died Nov. 29. He was 77.

Page was born Jan. 22, 1926, in Auburn, Wash. He served in the Army's Military Police for 20 years. Page moved to Livermore in 1966, where he went to work for the security at the Laboratory. He retired in 1985.

He enjoyed jigsaw puzzles and collecting eagles, plates and coins. A devoted family man, he loved spending time at home with his wife and other rela-

He is survived by his wife of 48 years, Irene, of Livermore; his daughters, Annemarie Lawrence of Livermore, Tina Page of Livermore and Brenda Page of Manteca; his son, Del Page of Valley Springs; his sisters, Doris Martin, Sylvia Brown and Metta Smith, all of Washington; and three grandchildren.

Wendell Johnson

Services have been held for Wendell Johnson, a Lab retiree who died Nov. 21 in Tucson, Ariz. He was 69.

Johnson worked in electrical engineering and spent much of his career in the weapons program, both at the Lab and at the Nevada Test Site. He retired from the Lab in 1993.

Born in Omaha, Neb., in 1934 and raised in Phoenix, Johnson went to college at the University of Arizona, taking time from his education to serve as a Marine Corps drill sergeant during the Korean War. After the war he returned to his studies, earning his bachelor's degree from the University of Arizona and his master's degree in engineering from the University of Nevada-

He then joined the Lab in 1963 and remained there until his retirement.

Johnson was an avid reader and rock hound who also enjoyed history, traveling throughout the world and exploring the back roads of desert

Survivors include his wife of 33 years, Judith; five children, Bryon, Cathleen, Janet, Terrilynn and Kristin; and 16 grandchildren.

Contributions in his memory may be made to the University of Arizona General Scholarship Fund, 1111 N. Cherry Ave., Tucson, AZ 85721.

Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

Contacts:

Media & Communications manager: Lynda Seaver, 3-3103

Newsline editor: Don Johnston, 3-4902

Contributing writers: Bob Hirschfeld, 2-2379; David Schwoegler, 2-6900; Anne M. Stark, 2-9799; Stephen Wampler, 3-3107; Gordon Yano 3-3117. For an extended list of Lab beats and contacts, see http://www.llnl.gov/llnl/06news/ NewsMedia/contact.html

Photographer: Jacqueline McBride Designer: Julie Korhummel, 2-9709 Distribution: Mail Services at LLNL

Public Affairs Office: L-797 (Trailer 6527), LLNL, P.O. Box 808,

Livermore, CA 94551-0808

Telephone: (925) 422-4599; Fax: (925) 422-9291 e-mail: newsline@llnl.gov or newsonline@llnl.gov

Web site: http://www.IInl.gov/PAO/

Friday, December 12, 2003

Newsline 3

THE HOME PAGE



Kaleidoscope shows how donations come back HOME

By Alane Alchorn

IBIS

Let's get personal for a minute. You like your money, and you want to keep it close to you for as long as possible, right? Then give some of it to the HOME Campaign and watch those bucks boomerang back to help Lab families.

The HOME Campaign acquired its acronym from the core notion that any charity drive ought to Help Others More Effectively, beginning right here. That is

exactly what happens when you donate to Easter Seals Kaleidoscope in Dublin.

All Lab donations stay in the Tri-Valley for the after-school program, the only such activity in the entire region. The Kaleidoscope after-school program serves developmentally disabled children and young adults ages 5–22.

Annually it provides more than 37,000 hours of social and recreational activities, independent living training, behavioral coaching, and family strengthening. Numerous Lab families benefit directly, and two of them agreed to share what Kaleidoscope means to their children.

Mike Hodsdon, IBIS assurance officer, has been at LLNL 12 years. Kaleidoscope assists his daughter, Nicole.

For the past seven years, Nicole has been one of the young adults developing independent life skills at the Dublin facility. Mike explains, "These services are vital since my wife and I both work, and Nicole could not be left home alone after school or in summer."

"Kaleidoscope provides a wonderful program for Nicole that includes field trips, community outings, arts and crafts, life skills development, and job skills training. Nicole is now 21 years old and lives in her own apartment with a caregiver. Kaleidoscope has provided the social and life skills Nicole needed to make this important step in her life."

Bruce Frame and Janet Frame can boast a collective 58 years of LLNL experience. They arrived at the Lab in 1974 and have remained here ever since. Bruce works in the Computer Security Office, while Janet is the Computation Directorate Operations Manager. Their son, Austin, now 14, has attended Kaleidoscope since he was 6 years old.

Janet says: "Easter Seals Kaleidoscope has been a godsend to our family. They provide our son with safe



after-school care, recreation and preparation for independence in a structured setting. They have frequent community outings where they learn how to interact with the public and how to handle the challenges of day-to-day life such as transportation and shopping."

"Kaleidoscope also provides families a brief respite in caring for a disabled child so that they can take care of work and other family obligations. We

are so thankful that Kaleidoscope has been there for our son Austin."

For several years, Kaleidoscope has used temporary trailers that are ill suited to the program design. In June, the Bay Area Easter Seals board of directors endorsed an ambitious campaign to grade the site, install new modular buildings, and replace the landscaping.

According to an Easter Seals web posting, agency CEO Mike Pelfini, announced three imperatives for the modernizing effort. "First and foremost, we need to improve our space for the children and young adults who attend our program daily.

"Second, we need to follow the advice of our friends in the community who asked us to deliver a feasible and practical project. And third, we need to conduct ourselves in a way that will make Dublin proud, especially our neighbors who will appreciate a more attractive site on Larkdale Avenue."

For details about the good your dollars can do so close to HOME, point your browser to http://bayarea.easter-seals.org/ and click on the Kaleidoscope link. You might see a familiar face

Home Campaign contributions as of Dec. 11: \$1,291,084

Dimenteral	T-4-1	E I	Δ	D
Directorate	Total	Employee	Amount	Percent
	Employees	Contributions	Donated	Participation
Director's Office	116	62	\$38,343	53.4%
Energy & Environment	304	120	\$49,512	39.5%
Computation	992	335	\$162,368	33.8%
Chemistry & Materials Science	482	184	\$101,388	38.2%
Safety & Environmental Protection	738	299	\$102,097	40.5%
Physics & Advanced Technologies	350	159	\$73,619	45.4%
Defense & Nuclear Technologies	370	155	\$85,219	41.9%
Lab Services	1451	508	\$141,116	35.0%
Safeguards & Security	374	47	\$14,296	12.6%
National Ignition Facility Programs	191	89	\$33,296	46.6%
Engineering	2090	626	\$291,554	30.0%
Chief Financial Officer	99	63	\$17,727	63.6%
Nonproliferation, Arms Control	243	93	\$47,963	38.3%
& International Security				
Admin. & Human Resources	219	147	\$36,783	67.1%
Biology & Biotechnology Research	222	40	\$17,736	18%
Johnson Controls	73	73	\$68,122	N/A
Retirees	75	75	\$5,570	N/A
Others	6	6	\$4,375	N/A
Total Participation	8395	3081	\$1,291,084	36.7%



FRANK NUÑEZ/IBIS

And this week's HOME prize.....

On Dec. 9, Patricia Axelrod, far right, presented prizes to the week's HOME Campaign incentive drawing winners. Left to right are Tony Hoang, a Dom's Outdoor Outfitters \$50 gift certificate; Jeanne Robinson, an autographed puck from the San Jose Sharks ice hockey team; Patricia Revell, a \$25 Applebee's gift certificate; and Valerie Holecheck, a complimentary large pizza at Frankie, Johnnie, Luigi Too. Not pictured is Carl Melius, a \$25 Applebee's gift certificate.

4 Newsline Friday, December 12, 2003



News you can use

Creating higher confidence in software through SQA

Software has become a key component of Lab products. Computer programs are no longer just a tool, but an end product the Laboratory delivers to its sponsors. Whether the software product is a control system for the National Ignition Facility, ASCI scientific codes or applications built on databases, the customer expects the same rigor and quality the Lab requires for all of their products.

Software requires different approaches than hardware. For example, when testing hardware, the part is tested to see when it will fail; and usually a physical change occurs when the part fails. In software, it's important to test different paths through the software. The software quality discipline has continued to evolve in industry. Industry and Lab programs recognize good software quality practices as a way to achieve better performance, reduce cost and meet the schedule in software products created at LLNL.

The LLNL institutional Software Quality Assurance (SQA) policy was approved Oct. 3. The primary objective of the institutional SQA policy is to create higher confidence in the performance, cost and schedule of software products. By developing a consistent software quality framework, the Lab will also ensure it meets customer needs, as well as complying with software quality requirements. Trish Larson Damkroger, director of the Center for Applications Development and Software Engineering (CADSE) in the Computation Directorate, will

lead this effort as the newly appointed LLNL SQA manager.

The policy states: "A multi-tiered, risk-based, tailorable approach shall be used to define the software quality practices that apply to the project." A graded approach will allow a balance between hazards associated with the work the software is performing, and the rigor of software quality practices needed.

An SQA Implementation Plan (IP) will define the risk categories and associated practices based upon a set of over-riding SQA principles. Each directorate has appointed one or more

individuals to serve as members of the newly established SQA Steering Committee to develop the SQA IP. The IP will be modeled after existing external standards and current LLNL SQA practices to ensure added value to existing and future projects. Completion of the institutional IP is expected by end of FY03. The next step will be developing tools and templates project leaders can use as guidance in meeting their software quality needs.

This proactive approach is necessary because external drivers are increasing their oversight of the Lab's software quality. Three years ago, the Defense Nuclear Facility Safety Board (DNFSB) identified software quality deficiencies in safety-related software used at Department of Energy sites. A further recommendation last year required DOE to develop a

corrective action plan, and a standard upon which software quality could be audited. The deadline for the completion of the DOE software quality plan is the end of FY04. In comparison, an institutional SQA policy has been in effect at Sandia National Laboratories since 2001 and their weapon's program is becoming ISO 9000 this year. Los Alamos has recently released a software quality policy, and is

discussing the need for high risk projects to be Software Engineering Institute/Capability Maturity Model (CMM) level 4, which implies institutional software quality practices are defined and managed.

LLNL is developing an institutional software quality framework in the IP. Since the needs of each directorate vary, the SQA practices can be tailored to directorate program needs. In the research phase, an informal SQA process is the most appropriate level of rigor needed in most cases. In the production phase, more rigor is usually needed in software quality practices. The Implementation Plan will define the "whats" of the institutional software quality plan. The directorate or program Quality Assurance Plan (QAP) will define "how" each directorate will implement the SQA plan. CADSE will have software quality experts to work with each directorate and program as requested. Progress on the institutional SQA effort can be tracked on the ISQA Website https://www-r.llnl.gov/isqa.

Technical Meeting Calendar



INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"The Roles of Radiation & Stellar Interactions in Star Formation," by John Bally, University

of Colorado. Noon, Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Sharon Taberna, 3-6290.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"The Stanford Data Stream Management System," by Jennifer Widom, Stanford University. 10 a.m., Bldg. 451, room 1025 (property protection area). For more information, see ttp://www.llnl.gov/casc/calendar.shtml. Contact: Ghaleb Abdulla, (CASC) 4-3557, or Leslie Bills, 3-8927.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Early Experience in Splintering Communication Protocols," by Barney Maccabe, University of New Mexico. 2 p.m., Bldg. 451, room 1025 (property protection area). For more information, see http://www.llnl. gov/casc/calendar.shtml. Contact: Andy Yoo, (CASC) 2-3721, or Leslie Bills, 3-8927.



INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Merrimac: Supercomputing with Streams," by William Dally and Patrick Hanrahan, Stanford

University. 3 p.m., Bldg. 451, room 1025 (property protection area). For more informa-

tion see http://www.llnl.gov/casc/calendar.shtml. Contact: Kim Yates, (CASC) 4-3642, or Leslie Bills, 3-8927.

ICC: MACINTOSH TECHNICAL SEMINAR SERIES

This session of the Macintosh Technical Seminar Series will feature a presentation on directory services by Robert Esker, Apple Computer. Mac OS X utilizes Open Directory, a highly flexible, standards-based directory services architecture based on OpenLDAP. Esker will discuss best practice implementations of Open Directory with Mac OS X client and server systems, and compatibility with Microsoft's proprietary Active Directory. 10:30 a.m., Bldg. 543 auditorium. Contact: Duane Straub, 2-9774, or straub1@Ilnl.gov.

ENERGY & ENVIRONMENT DIRECTORATE

"From Earth Science to Sonoluminescence to Biology..... Ask Me How," by Willy Moss, Earth Science Division, 1:30 - 3 p.m., Bldg. 543 auditorium (refreshments will be served). Contact: Camille Vandermeer, 3-2672.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"A Data Grid Framework for Managing Planetary Science Data," by Daniel Crichton, Jet Propulsion Laboratory. 10 a.m., Bldg. 451, room 1025 (property protection area). For more information, see http://www.llnl. gov/casc/calendar.shtml. Contact: Ghaleb Abdulla, 3-5947, or Leslie Bills, 3-8927.



CHEMICAL BIOLOGY & NUCLEAR SCIENCE

"Remote Detection of Nuclear Magnetic Resonance," by Juliette Seeley, U.C. Berkeley. 10

a.m., Bldg. 155, auditorium (property protection area). Contact: Bonnie McGurn, 3-2764, or Beverly Zumwalt, 2-7535.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"From Security to Cells: Ongoing Machine Learning Research at the University of New Mexico," by Terran Lane, University of New Mexico. 10 a.m., Bldg. 451, room 1025 (property protection area). For more information see http://www.llnl.gov/casc/calendar.shtml. Contact: Tina Eliassi-Rad, (CASC) 2-1552, or Leslie Bills, 3-8927.



INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS

"Life in Extreme Environments and the Search for Life on Mars," Chris McKay, NASA Research Center. Noon, Bldg.

319, room 205. Contact: Wil van Breugel, 2-7195, or Josie Morgado, 2-7181.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov.

Friday, December 12, 2003 Newsline 5

Around the Lab



Amigos Unidos speaker inspires minority youths

By Barry Schrader

NEWSLINE

Lab metallurgist Octavio Cervantes appeared at the Granada High School English-as-a-second language class early one morning last week and held the students spellbound, telling them his rags-to-riches story and offering advice on how they too, could become successful in life

Cervantes is part of a speaker outreach program of the Lab's Amigos Unidos networking group that has been talking with local high schoolers this year. The 28-year-old Tracy resident works in the Material Science and Technology Division, where he has been since April 2002.

"If you succeed in high school, most likely you will

succeed in life," he advised the students. "Always have short term goals.... You must have a good foundation in school to be successful later."

He asked each class member what that person wanted to do after earning an education. Answers ranged from auto mechanic, nurse and doctor to dentist, firefighter, inventor, teacher and even a stripper. He had praise for each of their choices, then went on to explain his own path to success. He said he was fortunate to have a math teacher in high school who challenged him to think about a career It was sug-



BARRY SCHRADER/NEWSLINE

Amigos Unidos speaker Octavio Cervantes, center, from LLNL chats with Granada High School students after his talk to their class recently.

gested he do what he liked most and turn it into a career path — like working on cars, then becoming a mechanic or engineer.

In his senior year he had an English teacher who encouraged him to apply for admission to UCLA; he took her advice and submitted several college applications the last day. Surprisingly, he received acceptances from several schools. He decided on Cal State Northridge where he received a bachelor's in mechanical engineering. He then went to the University of Illinois at Champagne-Urbana, where he completed a Master's in materials science and engi-

neering. While in college, he competed in several technical presentations, earning first place in many of them. He competed against students from Stanford, UC Berkeley and other big name schools and came out on top. This built his confidence and also taught him the value of teamwork. He learned it enables you to make a better product.

Talking about his success, he said by age 26 he was able to purchase two houses, adding, "there is a lot of money in science and engineering jobs, so if money is what drives you to choose a career path, this is a good one. But you have to have the grades and take the right courses starting in high school."

Cervantes' father and mother were always pushing the importance of education and their kids have not let them down. His older sister Lourdes is an accountant for Sony Entertainment. Myrna, his other sister, also attended Cal State Northridge and then got her

Master's in education from Western Kentucky University. Also, his younger brother Victor is now at Cal State Northridge, majoring in engineering.

Amigos Unidos Hispanic Networking Group, formed in 1984, organizes activities including a scholarship program, community outreach, and career education talks to high schools in the area. "I am glad to be part of such a great group," said Cervantes.

To learn more about the group go to their new Website at www.amigosunidos.net or contact Yahel de la Cruz or Michael T. Martin for more information regarding the outreach program.

CALDERON

 $Continued \ from \ page \ 1$

He's a member of the division's honor-guard and currently works the "owl" or graveyard shift at the Livermore site.

His artwork is quite a contrast to his military background, as this rough and ready former U.S. Marine — and current U.S. Army reservist — draws and sketches with the finesse of a master artisan.

Calderon recalls a keen interest in drawing since the second grade. After high school he completed fine art classes at Los Medanos Junior College. But it was at Mission Community College in Santa Clara that his art instruc-

tor motivated him to seriously appreciate his avocational talents.

Currently backlogged by requests from friends and family, Calderon produces original portraits in media ranging from charcoal, to pen-and-ink, as well as airbrush pieces. He occasionally works in watercolor and acrylic wash too. He has sold several commissioned portraits and has a waiting list for his work.

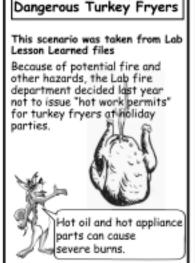
Inspired by his respect for Edward Teller, whom he had met on several occasions while at work, Calderon produced a 24-inch-by-36-inch charcoal-on-canvas portrait of the Lab's co-founder for Teller's memorial service in

With help from UTel's Mimi Alford, Calderon had studied videos and photos of Teller. The stunning sketch was based upon one of those photographs, and portrays Teller with graphic realism in fine black-and-white strokes.

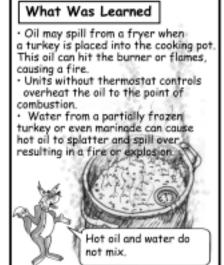
The canvas had been on display in Bldg. 271, but it now may be viewed in the Discovery Center through the holidays. Eventually the canvas will find its way into an on-site exhibit honoring Teller at the U.C. Davis Department of Applied Science.

Although he's on the cusp of a call-up by his Army Reserve unit for five-months of Military Intelligence training, Calderon says his long-term plans are to remain with PFD. "There are some exciting changes going on in our division right now, and I want to be part of them," he said.

ISM X-FILES / by John Maduell







Sponsored by the SEP Directorate

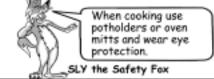
Recommended Action

If using a turkey fryer at home, take the following precautions:

 Use turkey fryers outdoors, far from buildings and combustibles. Never use on wooden decks or in garages.

· Never leave the fryer unattended.

 To avoid oil spillover, do not overfill the fryer.
 Make certain turkey is completely thawed to avoid adding water. Use care when adding marinade.



CLASSIFIED ADS

See complete classified ad listings at https://www-ais.llnl.gov/newsline/ads/

AUTOMOBILES

2002 - Honda Civic 2 Dr coupe. 30,000 miles, A/C,pw,pl, pb, tinted windows, alloy rims, nice car with good gas mileage, too much to list. 209-832-5944

1994 - BMW 740i; Very good condition; 103K miles. White with grey interior. Runs great; well maintained. \$10,500 or best offer. 925-292-0231

1995 - 1995 Saturn SL2 4 door sedan, 5 speed, AC, moonroof, AM/FM/CD, dark blue, 141K miles, good condition 925-447-7287

1970 - El Camino. New motor, trans, brakes, exhaust, headliner & carpet. Mechaniclly sound. In primer ready for paint. \$4200.00 OBO 209-599-1964

1994 - Volkswagen Jettalli GLSedan 146Kmi. Fair condition Lowered Custom wheels 2400 OBO. 209-982-0076

1995 - Ford Taurus low mileage, great condition. Asking \$5500.00 209-239-2966

1986 - Jeep Cherokee, gold, excellent body, alarm, new tires, rims, transmission, and alternator. Needs engine work. \$1,200 or best offer. 925-961-1930

1931 - Ford Model A deluxe roadster, unrestored. Dual side mounts, rumble seat. Mint sheetmetal.Asking \$6000 925-447-6670

2000 - V6 Passat GLS Wagon. Man.Trans. 21K mi.Silver /gray cloth int. Ex.Cond. Alloys & more. \$15,300./obo. Before 9pm 925-376-1595

1986 - Corvette, red, 89k miles, ALL ORIGINAL very clean, auto trans, blk leather int, drives nice. Taken care of. 2 covers. \$9500 925-634-0423

AUTOMOBILE ACCESSORIES

1979 Chevy small block 400ci engine for rebuild or core \$200.00 925-449-5626

Antique carriage lights, ca 1890, beveled glass, mint condition. \$190.00 925-447-6670

BICYCLES

Schwinn Mtn Bike Frontier MUST SELL, 19in mens, 21sp, grip shift, Cr-Mo/Hi-Ten frame, 3-finger brakes; only a few months old and hardly used!; \$140 925-456-5777

BOATS

Achilles inflatable with 30 horsepower Evinrude outboard, brand new custom trailer, too many extras to list -- excellent condition \$3,550. 209-599-1059

CAMERAS

Darkroom equipment. Enlarger, lights, timer, filters, trays, etc. \$100. takes all. 925-447-6682

ELECTRONIC EQUIPMENT

Gameboy Advance - Just what they want for Christmas. Good condition. \$45/OBO Some game also available. 925-447-2697

Corner computer table, \$15.00, HP Color flatbed scanner, (ScanJet 3200C) Still in box, never used;\$40.00. 925-443-9110

Dell Dimension 2100, 1.1 Ghz Celeron, 512MB RAM, 40GB HD, 48X CD-RW, 15-inch monitor, Windows ME, Surround speakers, lots of extras. \$500 or B/O. 209-835-8065

Arcade Game, Full Size, 4-player, The Simpsons by Konami. Great Xmas Gift for kids! \$1000. I can deliver locally! 925-484-0697

Computers: Macintosh IICi w/Apple 14inch monitor, 40mb removable hard drive, CD drive \$25. MAC Plus W/extra hard and floppy drives \$20. 925-829-3175

Mitsubishi 50inch widescreen TV in excellent condition. Sits on cabinet suitable for components. Approx 6 years old. \$500 925-828-1980

GIVEAWAY

Complete set of 1956 Encyclopedia Britannicas, 24 volumes in fine condition. Call 447-3809.

TRAC 20 fitness system, padded incline bench, adjustable resistance to 154 pounds. You haul. 925-443-9929

Cat, male, neutered has shots, 5 years old, yellow, needs a 1 pet home 209-839-0068

HOUSEHOLD

Dining table(36in x 60in) w/ 6 chairs and leaf. Good for college student \$50.00 OBO 925-443-3283

Antique table W/two leaves and 6 chairs \$ 575. obo. 209-823-0508

Rubberwood table 30 x 30 inch. \$30 925-455-8609

White leathermate couch and loveseat. Reclining mechanism is partially broke, but other wise okay. \$250 each or obo. 925-455-6044

Samsonite Luggage (2 Pieces), 26inx20in,x7in., w/wheels and pull handle, 22in.x17in.x6in., dark blue, excellent condition, keys, both for \$50. 925-443-1279

Magic Chef (Maytag) 23 cu ft Side by Side Refrigerator White No Auto Ice Maker 3.5 years old Excellent Condition \$400 925-

Beautiful Light Oak Crib w/out mattress \$50. 209-234-2314

Mahogany Dining Room Set---Buffet, double pedestal table w/2 leaves &pad, 6 upholstered chairs-4 side, 2 arm. \$900 925-447-6221

LittleTikes country kitchen w/ lots of play food and accessories. Excellent condition. \$75 925-454-0877

Pali Crib with mattress, light wood, in good condition, \$250.00 OBO 925-454-2785

Eureka EX 60284A canister vacuum cleaner bags. 10 bags for \$10. 209-830-9129

LOST & FOUND

LOST: Makeup bag navy blue and maroon on AM ACE shuttle bus in late November. Please turn in to lost and found at B274 or return to B216, room 116. 209-839-2266

MISCELLANEOUS

Beanie Babies - Millions of em (well just lots) 50 cents on up. Many with tags. Most well cared for. 925-447-2697

Boys and Girls name brand clothes (Gap, Gymboree, etc) ages 0-6. Excellent condition and prices. 925-361-4491

Thomas the Train - cars, tracks, structures and train table. Great prices and great condition. 925-361-4491

Lot of nice womens clothes. Sizes 8-12, LG to XL. Leather, cotton, silks, wools. Coats, sweaters, skirts, pants, shirts. Aprx. 22 pieces \$30.00 OBO 925-443-3283

Gift Candy for the Holiday. Boxes and Tins. Rocky Road and Turtles. Call for more information. 209-239-6016

Campbell-Hausfeld airless sprayer, 3/4 hp, 0.44 gpm, 50 foot high pressure hose, includes storage solution and 4 foot masking wand. \$325 925-455-8609

American Girl: books/short stories, Felicity doll, clothes, accessories. Sell separately or together. Best offer. 510-483-1666

VHS Disney Tapes \$10 ea. All in excellent condition. Please call after 4:30 for available titles. 209-835-7413

Monitor, Sony Trinitron, 17 inch, color multiscan 200ES, excellent condition. \$50. 925-648-0671

Girls London Fog winter coat sz 3T, \$8. Maternity clothes, Xmas sweater, jeans, jumper, etc. sz 8/10. \$50 for box. 925-454-0877

Tickets x2 for Cats Musical 12/20 in SF. \$86 each-face value. 408-768-5070

Vintage LPs. 50s, 60s and 70s. Many to choose from. Make Offer. 925-606-1728

MOTORCYCLES

85 Honda XR100 great kids bike \$1000 209-838-0304

2003 - Kawasaki Ninja ZX-6R, warranty valid thru 3/2007, only 700 miles, \$7,500 510-861-2340

2000 - Honda Nighthawk CB750 700 total miles, Fairing and Saddle Bags \$4000. (209) 836-3069

1985 - Honda XR350R Fresh engine, new pumper carb, new oversized header, prof suspension, great condition \$1500 209-838-0304

MUSIC INSTRUMENTS

Baldwin Acrosonic Upright Piano--reddish brown mahogany finish in good condition but needs tuning. \$500. 925-846-4188

PETS & SUPPLIES

New Aquarium (2 Mo): Eclipse 18 tank, pump, filter, light, UG filter, vacuum, skimmer, auto feeder, plastic plant, book. Paid:\$223.53 Sell for:\$75.00 510-209-5033

Red Satin Bunny. Doe, 7 Mo. old. Good pet or project and has been shown twice. \$20.. 925-447-6682

RECREATION EQUIPMENT

CARDS - Yu Gi Oh Exodia and many more, MAGIC, and Pokemon. Many very rare cards priced from \$100 to cents. Excellent Condition. 925-447-2697

Exercise bike by Healthrider. \$75/OBO 925-447-4126

SADDLE: Dressage, 17 inches, med. tree, black, excellent condition, like new. Pictures can be emailed upon request. 925-373-8895

Precor Elliptical Crosstrainer EFX 5.17 Good Condition. \$850 obo. 925-980-6387

PRE Snow Skis with Tyrolia bindings \$40 209-234-2314

Interspiro AGA positive pressure full-face dive mask -- excellent condition \$500.00 or best offer. 209-599-1059

GOLF CLUBS - Top Flite irons, Ti driver, SW, Putter and bag. Great for beginner. \$100. 925-699-4763

RIDESHARING

Express your commute, call 2-RIDE for more information or visit http://www-r.llnl.gov/tsmp

Concord/Pleasant Hill/Walnut Creek - Seats available on luxury van. Arrive lab 7:45AM, depart 4:30PM 925-947-6969, ext. 2-4206

Modesto Vintage Faire Mall Park-n-Ride - Immediate opening Daves Luxury vanpool, captain seats, reading lights cellphone work hours 8-4:45 ridership-based fares, 209-544-2236, ext. 3-3194

Orinda - Lamorinda carpool seeking 4th rider/driver. Lab hours 8am-4:45pm. Meets at 24 and St. Stephens. 925-253-0498, ext. 2-9823

BERKELEY - Rider/driver needed to complete a four person carpool from north Berkeley. Leave Berkeley- 7 am. Leave LLNL-4:40 pm. 510-524-8332, ext. 2-5949

PATTERSON - Vanpool has seats available for 7:30-4:00 shift. Take advantage of Pre-Tax Transportation Program and Guaranteed Ride Home Program. 209-892-2118, ext. 2-9502

SERVICES

Scrapbook Class - your place or ours, \$10 a person. You schedule and make 70% of net profit. 925-828-1140

Windshield Chip Repair after 5PM call 209-234-1366

SHARED HOUSING

Livermore - furnished room for rent. Clean/quiet. 550.00/month. Share utilities 1/3. Mature adult. No pets/no smoking. Deposit required. 925-449-1128

Livermore - 1 bedroom in house. Shared bath & kitchen, washer/dryer. \$550 TOTAL a month, deposit \$550. No pets, no smoking. Please call with questions. 925-245-1725

Ripon - Christian woman seeking honest, responsible female to share furnished home on quiet street. \$500/mo + 1/2 utilities + \$200 deposit. 209-599-7907 Livermore - Single parent w/2 daughters has rm avail. for rent. Warm, friendly environment. Large Mstr br/ba with all priv. \$600/mo incl util. Female pref. 925-606-0260

Danville - Room/Bath available in Downtown Danville, Kitchen, laundry, pool. 1/2 Untilties, \$750 mo, \$600 Deposit. Call if interested. 925-381-2359

TRUCKS & TRAILERS

1978 - Dodge D150 6 cyc, 4 spd, 98K miles, Shell, Minor body damage, Runs, Smogs, \$1250/OBO 925-447-2697

1998 - Dodge Dakota, Reg cab, shell, 5spd.,A/C, 51K mi, \$5500 925-828-6597

1989 - Nissan Pathfinder 4WD. Motor in good condition, recently smoged, body in great shape, no rust. Needs tires. Been a great vehicle. (\$2000.00) 925-634-

2000 - Jeep Wrangler sport, yellow,cd,am/fm,cruise ac,at,ps,abs. 39kmiles, 8klb. warn winch k.c. daylighters \$13,000 925-525-2008

Utility rack, BO 209-834-1465

VACATION RENTALS

Warm cozy mountain house near Bear Valley Ski Resort, in Dorrington. 4 bedr,2 bath, fully equipped kitchen, wood burning fireplace. 925-245-1114

Sooo cute beach cottage in Santa Cruz. 4 blks. from ocean. 2 bedr,2 bath. Sleeps 7-8. Fully equipped kitchen, spa. 925-245-1114

Gualala, Mendocino Co - Coral Cove, Vacation Getaway! 180 degree whitewater ocean vistas. See http://coralcove.us Discount to LLNLers. 925-606-1845

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, newly remodeled, nicely furished, all amenities, close to all skiing, RESERVE NOW!CHRISTMAS WEEK OPEN! 209-599-4644

South Lake Tahoe - Two Bedroom Condo avail: 4/10 to 4/17/04. Full kitchen, sleeps 6.Close to Heavenly. \$695 for 7 nites. 925-443-5714

WANTED

Wanted: portable basketball hoop/goal. 209-834-1665

Lapidary saw/grinder for gems call 209-234-2314

Looking for a cheap used PC for my kids to bang on...any old PC (I have monitor and peripherals) will do! 415-725-2635

Wanted, Used Clothes Dryer. I will pay a reasonable price. 209-983-8372

Services and merchandise listed in *Newsline* are not guaranteed. It is up to the buyer to scrutinize services purchased. Friday, December 12, 2003



BOB HIRSCHFELD/NEWSLINE

Tinsel and tags serve as holiday reminder of those serving overseas

This year Compensation, Benefits and Worklife Programs is paying tribute to the the 21 Lab employees currently serving abroad through a special Christmas tree. Lisa Gomes (left) and Brenda Perry, of Employee and Affiliate Personnel Services, decorated the tree with replica dog tags, one for each employee deployed overseas. The tree also features decorations from LLESA and diversity programs.

TOPSCIENCE

Continued from page 1

TOPScience volunteers are good, experienced, creative people who enjoy seeing kids "get the idea." We can be found in Livermore's four middle schools, as well as six of its 12 elementary schools. You may recognize many of these names. Mort Mendelsohn goes to Christensen Middle School; Jay Davis assists at Junction School where his own children once attended; Barbara Mallon works at Smith Elementary; Art Krakowsky guides students at Jackson Elementary School; Kalina Wong visits Sunol Glen School (which is affiliated with Livermore's TOPScience); Asher Blum travels to Altamont Creek Elementary School; Sandia's Jim Lathrop assists at Portola Elementary and Ken Mitchell works at Marilyn Avenue Elementary; and GE's Bob Cowan goes to East Avenue Middle School.

I enjoy spending time with young people, and like many other grandpar-

ents nowadays, my own grandchildren live on the other side of the country in New York and Philadelphia. The TOPScience program not only fills the need for science awareness in the classroom, but also allows retirees like me, great opportunities to interact with young minds.

Each volunteer spends about eight hours a month in the classroom with one long day, a few half days or a few hours each week. I spend Tuesday mornings at Mendenhall, when I am not traveling or on jury duty. I average about eight hours a month.

We all help the teachers meet the state curriculum requirements, while at the same time, we are happy to



TOPS scientist T. J. Gilmartin, left, with Mendenhall science teachers Kate Smiley and Karen Cowan in front of the TOPScience inflatable planetarium.

demonstrate how a lot of things work. Volunteers use their own unique background in the various activities they conduct. While I focus on lab work and demonstrations using topics such as a catapult contest and a Rube Goldberg machine, Jay Davis uses his past visits as part of the inspection teams in Iraq, to discuss with students how science is vital to the national interest.

Barbara Mallon teaches photography. Jim and Mary Hannon created a dinosaur dig and planted an "experimental " garden for younger students. Bob Cowan showed how to make a 10-cent electric motor from garage parts. Art Krakowsky taught a Gifted and Talented (GATE) science class, providing enrichment

beyond the requirements of the California standards.

To keep our teaching skills sharp, we sponsor training sessions on a wide variety of planned lessons, the Lawrence Hall of Science series "Great Explorations in Math and Science" (GEMS) and many of us attend the California Science Teachers Association convention every other year. We routinely exchange with one another our self-invented lesson plans.

All of us seasoned TOPS scientists are eager to welcome new volunteers and help them find the best way to apply their particular talents to the classroom and bring their love of science to local students. Presently, there are 11 TOPS scientists in the Livermore Valley and 15 in the San Joaquin Valley. We are seeking six more this year in Livermore.

Why join the TOPScience team? This year the Livermore Valley Joint Unified School District

suffered many budget cuts that affected some science programs — particularly in the elementary grades. Your involvement in the TOPScience program will really make a difference. And, as a bonus, you will relearn a lot of basic science while sharing the excitement of students as they exclaim, "I see. Wow. That's cool!"

Are you a scientist or engineer who is retired or plans to be soon? Are you interested in inspiring young students and sharing with them your science background and expertise? If so, please contact TOP-Science representative T. J. Gilmartin at gilmartintj@comcast.net.

REORGANIZATION

Continued from page 1

Tulk said the change comes after examining how Laboratory services would best be organized "on the operations side of the house."

"We've worked to find commonality in our organization," Tulk said. "These organizations new to our directorate bring expertise that will have a positive impact on the services we provide." The reorganization takes effect Jan. 1.

Pam Smith will be the head of the Business Services Department and continue to serve as interim leader of the Technical Information Department.

Elements remaining in the Business Services Department include; Information Systems and Performance Management; Employee Services Division; Property Management Division and Resources and Personnel Management. The Archives and Research Center, Information Management (review and release) and Administrative Information Systems will also remain in business services.

Smith assured employees the reorganization would not change the close working relationship between services after the move to AHRD. "The synergy will continue," she said.

Leary echoed that sentiment, emphasizing the focus should be on services not organizational divisions. "It's very important that people work across organizational lines," he said. 8 Newsline Friday, December 12, 2003

Tiger salamander is a truly unique California native

It's hard to imagine a heat sensitive animal that can easily dry up and die from heat exposure living far from water in the grasslands of California. As we all know, the weather of the Tri-Valley and Central Valley of California is characterized by long periods of high temperatures, low humidity and periodic droughts followed by relatively brief, cold and wet winters.

Even with the prospect of desiccation, the California tiger salamander (*Ambystoma californiense*) has evolved to fill a niche occupied by no other salamander in California. The only way the California tiger salamander can persist in this

seemingly inhospitable habitat is to hide from the relentless heat in the mild underground climate of tunnels and dens of grassland mammals. Grassland mammals have a propensity to dig elaborate burrows for breeding and shelter. The California tiger salamander is not anatomically equipped to dig its own burrow so instead takes advantage of the hard work of others. Of particular importance to the California tiger salamander in Liver-

more and Site 300 is the California ground squirrel (Spermophilus beecheyii) and to a lesser extent Botta's pocket (Thogopher momys bottae), two highly motiburrow vated excavators.

December is

an important month for California tiger salamanders because the wet season allows for nighttime above ground movement and a brief opportunity to see this highly secretive and specialized native Californian. Above ground movements are almost exclusively from burrows to breeding areas, which can be stock ponds or natural seasonal pools (i.e. vernal pools).

Breeding migrations or "hikes" can be up to a mile and take several days or weeks to complete. The male salamanders arrive first at the pond followed by the females in subsequent rain events. A courtship "frenzy" occurs and breeding follows with the females laying eggs singly or in small clusters (far left).



By Michael van Hattem

The California tiger salamander is thought to live a long life of about ten years. The eggs, left, take about 10-14 days to hatch. The larvae period, right, occurs over a 3-6 month period to eventually become an adult California tiger salamander, center.

Eggs take about 10-14 days to hatch depending on temperature. The larval period takes 3-6 months, where larvae rapidly develop and feed on a variety of invertebrates and small vertebrates, such as tadpoles. As the pond dries, California tiger salamander larvae absorb their feathery gills and develop lungs and some of their characteristic dark-spotted

The next step in the salamander's journey is mind-boggling because the formerly aquatic salamander is now faced with the reality of terrestrial existence. In the final days and weeks before the pond dries, larvae (now called meta-

morphs) emerge and disperse into the upland habitat in search of a burrow to call home. The first night away from water is critical because the next day brings temperatures that will be lethal to an exposed salamander. Take a moment and think about how challenging the life of the California tiger salamander is. If the metamorph makes it to a burrow and survives, it may be 4-6 years before it returns to breed as an adult.

The California tiger salamander is a long-lived animal, probably in excess of 10 years, but like many declining species, each adult produces very few offspring. A number of factors including habitat loss and fragmentation, non-native species introductions and mammal control programs (such as ground squirrel control efforts) have led to the California tiger salamander being classified as a Species of Special Concern and now proposed for listing as "Threatened" under the Federal Endangered Species Act. In May 2004, the future of the California tiger salamander may be decided as the U.S. Fish and Wildlife Service will

issue a ruling on whether this state endemic becomes protected under the act. Until then, take advantage of these early sea-

son nighttime rains and see if you can catch a glimpse of this unique representative of California's native biodiversity.

The California ground squirrel has long been

considered a pest in California because of its impact on agriculture and its tenacity to dig, but ecologically it is a keystone species. A keystone species can be thought of as an animal that once removed from an ecosystem would result in profound changes in the structure and biodiversity of that system. In simpler terms, California ground squirrels build homes for salamanders and frogs and are grassland Twinkies for eagles and badgers.



California ground squirrel

Mountain lion sightings east of Laboratory

Sightings of a mountain lion roaming east of the Laboratory in the vicinity of Lupin Road have been reported to Laboratory and Sandia authorities.

While the likelihood of a close encounter with a mountain lion is remote, wildlife biologists recommend that employees who walk or jog in areas east of the Lab be vigilant and take precautions such as traveling in pairs. Any sightings should be reported to LLNL wildlife biologists at 4-WILD (424-9453).

Though they generally avoid contact with humans, mountain lions can be dangerous. They are very quick and able to leap the 10-foot fences on site.

"It's important to remember that we work on the northern edge of very good mountain lion habitat," said Michael van Hattem, Lab wildlife biologist. "As a carnivore and top predator, the mountain lion has always been here, playing an important role in the ecosystem's function and health."

Growing concern for and appreciation of mountain lions led to their being designated a "special protected mammal" in 1990.

The mountain lion, also commonly called a cougar, panther or puma, is tawny colored with black-

tipped ears and a long tail. Adult males may be more than 8 feet long, from nose to the end of tail, and weigh between 130 and 150 pounds. Females are generally smaller

By nature they are secretive and solitary, which makes it possible for humans to live in mountain lion country without ever seeing one. According to the California Department of Fish and Game, the potential for injury from an encounter with a mountain lion is very low compared to other natural hazards. For example, there is a far greater risk of being struck by lightning.

The department offers the following advice in the unlikely event a person should encounter a mountain lion:

- Do not hike alone.
- Do not run from a lion.
- Do not crouch down or bend over crouching or bending over makes one appear smaller and more like four-legged wildlife prey.
 - Do everything you can to appear larger.
 - Fight back if attacked.

For more information, consult the fish and game Website at http://www.dfg.ca.gov/lion/.



UC-LLNL PO Box 808, L-797 Livermore, CA 94551-0